



STATE COOPERATIVE DRAFT AGENCY DECISION STATEMENT
Kansas Department of Health and Environment
Bureau of Environmental Remediation

SITE NAME: **Kansas Brick & Tile Site (C6-005-72543)**

CITY/COUNTY: **Hoisington, Barton County**

DATE: **February 22, 2019**

MEDIA IMPACTED: **Soil, Groundwater**

LAND USE (Current): **Industrial**

Site Background: The Kansas Brick & Tile facility (Site) is located at 767 North Highway 281 in Hoisington, Barton County, Kansas. The site location is shown in Figure 1. Commercial and residential properties are located to the east, agricultural property located to the north and west, and a residence located directly south of the site with the Lake Barton Golf Club located south of that residence. General Finance, Inc. (GFI) is the current owner. Kansas Brick & Tile manufactures bricks for architectural, paving, and residential construction. The Site has been used for brick manufacturing since 1954.

In response to a complaint, the Kansas Department of Health and Environment (KDHE) conducted an inspection in July 2008. Unlawful solid waste disposal and burning was confirmed to be occurring at the Site. KDHE issued a Notice of Non-Compliance to GFI citing violations including failure to determine whether waste streams were hazardous, unlawful dumping, unlawful burning of wastes, and providing false/misleading statements to KDHE. Surface cleanup and removal of the dump area at the Site was completed in April 2009.

A limited site investigation was conducted in May 2009 by consultants for GFI with KDHE Bureau of Waste Management (BWM) oversight. Concentrations of arsenic, beryllium, lead, and vanadium exceeded the KDHE Tier 2 Risk Based Standards for Kansas (RSK) Levels for these substances in groundwater. Three monitoring wells were installed during the investigation, and the non-permitted burial of solid waste was confirmed. Delineation of soil and groundwater impacts was not completed during assessment activities.

The Site was transferred from BWM to KDHE Bureau of Environmental Remediation (BER) in January 2010. In November 2010, GFI entered into an Environmental Agreement with KDHE requiring them to perform a Preliminary Investigation (PI). GFI installed two new monitoring wells and in concert with the existing onsite monitoring wells conducted groundwater sampling. GFI also collected surface water samples from the silt ponds and soil samples from the maintenance shop concrete collection pit and the adjacent storm water ditch. Results from the PI prompted KDHE to request additional reporting for manganese and vanadium. The results for manganese confirmed that the concentrations collected were above RSK for groundwater. No other metals were identified at concentrations above RSK. KDHE requested that GFI complete a groundwater receptor survey to determine possible offsite impacts.

An additional groundwater monitoring event was completed and a water well survey was conducted on the eight houses identified as being downgradient to the Site. Five residences were found to have lawn and garden wells; manganese in one well was detected at a concentration above RSK. All eight target residences use municipal water for domestic purposes. Further investigation of the persistent presence of manganese in some of the onsite monitoring wells was undertaken to determine whether the presence of iron/manganese forming bacteria could be the cause of the high manganese concentrations in some of the wells. In September 2016 site monitoring wells MW-2 and MW-3 were disinfected with chlorine and subsequently purged. The wells were then resampled for manganese on October 2016. Results indicated that monitoring well MW-2 was likely impacted by a source of manganese, but that the earlier detections for MW-3 were likely due to iron/manganese forming bacteria (Table 1). Well MW-2 is screened in a perched aquifer that does not appear to have direct connection to the deeper aquifer in which the other monitoring wells are screened. The manganese contamination seems to be localized within the perched aquifer and shows minimal impact to the larger, deeper aquifer that extends off the Site.

Remedial Plan: The Site has been used for brick manufacturing since 1954 and has been impacted by unauthorized waste management practices including onsite waste burial, disposal of waste in silt ponds, and open burning. Surface wastes at the site were removed and recycled or transported to the Barton County Landfill in April 2009. Manganese, the only contaminant of concern at the site, remains in onsite groundwater at concentrations exceeding RSK.

GFI placed an Environmental Use Control (EUC) on the property in June 2017 that prohibits its use for residential purposes and prohibits the use of onsite groundwater for human consumption, irrigation, or any other use which may result in human consumption and/or contact. The property is zoned Industrial by Barton County and the owner is required to provide notification to KDHE fifteen (15) calendar days prior to initiating rezoning of the property. The owner must inspect the property every five years and submit a written report to KDHE on the condition and current uses of the property after each inspection to verify that the restrictions and terms of the agreement are being fulfilled.

Justification for Site Closure: The EUC restrictions on the property ensure that the remaining contaminated groundwater on this site will not be used for human consumption. The manganese in the groundwater has been shown to be stable and limited to onsite wells. Potentially impacted downgradient residences are connected to the city's water supply and none of these properties use domestic wells as a source for drinking water.

Recommendation: In consideration of the information available in the Administrative Record and summarized above, KDHE recommends conditional closure of the site.

Community Involvement: Public notice of the availability of the Draft Agency Decision Statement will be published in the Great Bend Tribune on March 31, 2019, and the Draft ADS will be available for review at the Hoisington Public Library 169 S. Walnut Street, Hoisington, Kansas 67544 from April 1, 2019 to April 15, 2019 during the 15-day public comment

period. Through this process, the public and other interested parties are given the opportunity to provide input on the proposed closure of the Site before the Agency Decision Statement is finalized. If response warrants, a public meeting may be held. KDHE has established a webpage located at [http://www.kdheks.gov/remedial/site_restoration/Kansas Brick & Tile.html](http://www.kdheks.gov/remedial/site_restoration/Kansas_Brick_&Tile.html) dedicated to the Kansas Brick and Tile Site.

Figures:

Figure 1 – Site Location

Figure 2 – Site Features

Tables:

Table 1 – Groundwater Manganese Concentrations





Table 1: Groundwater Manganese Concentrations

Monitoring Well	KDHE RSK (µg/l) *	Concentration Detected (µg/l)	Date of Most Recent Sampling	Maximum Concentration Detected (µg/l)	Date Maximum Concentration
MW-1R	50	12	4/6/2016	75.6	3/26/2014
MW-2	50	3190	4/6/2016	6610	3/26/2014
MW-3	50	55	4/6/2016	292	3/12/2015
MW-4	50	<5	4/6/2016	29.6	3/26/2014

*KDHE Tier 2 Risk-based concentration for manganese in residential groundwater

µg/l = micrograms per liter

Bold font indicates concentration exceeds RSK.